COSEWIC Annual Report

presented to

The Minister of the Environment

and

The Canadian Endangered Species Conservation Council (CESCC)

from

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

2012-2013

COSEWIC
Committee on the Status of Endangered Wildlife in Canada

COSEPAC
Comité sur la situation des espèces en péril au Canada

TABLE OF CONTENTS

ITEM I – COSEWIC ACTIVITIES 1
1. Wildlife Species Assessment Meetings 1
2. Important Notes Regarding Status Assessments 4
3. Other Species Assessment Activities 5
4. Wildlife Species Assessments returned by the Governor in Council (GIC) to COSEWIC for further information or consideration 5
5. Wildlife Species Selected for Status Report Preparation 6
6. Annual Subcommittee Meetings 6
7. COSEWIC Operations and Procedures 8
8. Procedural Working Groups 8
9. COSEWIC Communications 9
ITEM II – COSEWIC MEMBERSHIP 10
1. Membership Changes 10
ITEM III – WILDLIFE SPECIES ASSESSMENTS 11
ITEM IV – WILDIFE SPECIES ASSESSED BY COSEWIC SINCE ITS INCEPTION 12
APPENDIX I 13
COSEWIC Wildlife Species Assessments (detailed version), November 2012 14
COSEWIC Wildlife Species Assessments (detailed version), May 2013 28

ITEM I – COSEWIC ACTIVITIES

1. Wildlife Species Assessment Meetings:

> Section 15 (1) of the *Species at Risk Act* (SARA) states: "The functions of COSEWIC are to (*a*) assess the status of each wildlife species considered by COSEWIC to be at risk and, as part of the assessment, identify existing and potential threats to the species and
> (i) classify the species as extinct, extirpated, endangered, threatened or of special concern,
> (ii) indicate that COSEWIC does not have sufficient information to classify the species, or
> (iii) indicate that the species is not currently at risk".

Under Canada's *Species at Risk Act* (SARA), the foremost function of COSEWIC is to "assess the status of each wildlife species considered by COSEWIC to be at risk and, as part of the assessment, identify existing and potential threats to the species".

COSEWIC held two Wildlife Species Assessment Meetings in this reporting year (October, 2012 to September 2013) from November 25 to November 30, 2012 and from April 28 to May 3, 2013. During the current reporting period, COSEWIC assessed the status or reviewed the classification of 73 wildlife species.

The wildlife species assessment results for the 2012-2013 reporting period include the following:

Extinct:	0
Extirpated:	2
Endangered:	28
Threatened:	19
Special Concern:	19
Data Deficient:	4
Not at Risk:	1
Total:	73

Of the 73 wildlife species examined, COSEWIC reviewed the classification of 50 species that had been previously assessed. The review of classification for 26 of those species resulted in a confirmation of the same status as the previous assessment (see Table 1a).

Table 1a. Confirmation of status for species previously assessed:

EXTIRPATED	ENDANGERED	THREATENED	SPECIAL CONCERN
1. Puget Oregonian	1. American Badger *jacksoni* subspecies 2. Five–spotted Bogus Yucca Moth 3. Kidneyshell 4. Non–pollinating Yucca Moth 5. Northern Bobwhite 6. Oregon Forestsnail 7. Pink Coreopsis 8. Round Hickorynut 9. Sei Whale (Pacific population) 10. Slender Bush–clover 11. Yucca Moth 12. White Sturgeon (Upper Columbia River population) 13. White Sturgeon (Upper Kooteney River population)	1. Dun Skipper *vestris* subspecies 2. Eastern Ribbonsnake (Atlantic population) 3. Great Basin Gophersnake 4. Northern Goshawk *laingi* subspecies 5. Northern Wolffish 6. Soapweed 7. Spotted Wolffish	1. Atlantic Wolffish 2. Bridle Shiner 3. Eastern Ribbonsnake (Great Lakes population) 4. Northern Map Turtle 5. Warty Jumping–slug

Data Deficient and Not at Risk: COSEWIC assessed five species in November 2012 that were not assigned into risk categories. Classification was reviewed by COSEWIC for one wildlife species previously designated as Endangered by COSEWIC (but was not on Schedule 1 of SARA). COSEWIC assessed the Lake Winnipeg Physa as Data Deficient. In addition, four new species were assessed but not assigned a risk status: Riverine Clubtail (Boreal population), Riverine Clubtail (Prairie population), and Bull Trout Trout (Upper Yukon Watershed Populations) were assessed as Data Deficient, and Bull Trout (Pacific populations) was assessed as Not at Risk.

With the transmission of this report, COSEWIC provides assessments (see Table 1b) of 42 wildlife species newly classified as Extirpated, Endangered, Threatened and Special Concern to the Minister of Environment so that she can consider whether to recommend to the Governor in Council (GIC) that they be added to Schedule 1 of SARA.

Table 1b. Newly classified species for consideration of listing on Schedule 1 of SARA:

EXTIRPATED	ENDANDGERED	THREATENED	SPECIAL CONCERN
1. Eastern Tiger Salamander (Carolinian population)	1. American Badger *jeffersonii* subspecies (Western population) 2. American Badger *jeffersonii* subspecies (Eastern population) 3. Cusk 4. Fernald's Braya 5. Hairy Braya 6. Lilliput 7. Massasauga (Carolinian population) 8. Mottled Duskywing (Great Lakes Plains population) 9. Mottled Duskywing (Boreal population) 10. Plymouth Gentian 11. Riverine Clubtail (Great Lakes Plains population) 12. Striped Bass (Bay of Fundy population) 13. Striped Bass (St. Lawrence River population) 14. Western Tiger Salamander (Southern Mountain population) 15. White Sturgeon (Upper Fraser River population)	1. Bank Swallow 2. Bull Trout (Saskatchewan – Nelson Rivers populations) 3. Gibson's Big Sand Tiger Beetle 4. Island Tiger Moth 5. Massasauga (Great Lakes / St. Lawrence population) 6. Pugnose Shiner 7. Salish Sucker 8. Silky Beach Pea 9. Spiked Saxifrage 10. Threehorn Wartyback 11. White Sturgeon (Lower Fraser River population) 12. Wood Thrush	1. American Badger *taxus* subspecies 2. Bull Trout (South Coast British Columbia populations) 3. Bull Trout (Western Arctic populations) 4. Crooked–stem Aster 5. Eastern Musk Turtle 6. Eastern Wood–pewee 7. Eulachon (Nass / Skeena Rivers population) 8. Georgia Basin Bog Spider 9. Greenish–white Grasshopper 10. Haida Gwaii Slug 11. Striped Bass (Southern Gulf of St. Lawrence population) 12. Western Tiger Salamander (Prairie / Boreal population) 13. Western Toad (Non-calling population) 14. Western Toad (Calling population)

Appendix I provides the detailed results of COSEWIC's status assessment of each species, including the reasons for each designation. Status reports containing the information on which COSEWIC's status assessments are based will be available on the SARA Public Registry at the following address: www.sararegistry.gc.ca.

As of May 2013, COSEWIC's assessments include 691 wildlife species in the following categories: 15 Extinct, 22 Extirpated, 298 Endangered, 164 Threatened, and 192 Special Concern. Also, to date, 56 wildlife species have been assessed by COSEWIC as Data Deficient and 172 wildlife species as Not at Risk.

2. Important Notes Regarding Status Assessments:

Section 27 of SARA states that the Governor in Council may, on the recommendation of the Minister, by order amend the List in accordance with subsections (1.1) and (1.2) by adding a wildlife species, by reclassifying a listed wildlife species or by removing a listed wildlife species, and the Minister may, by order, amend the List in a similar fashion in accordance with subsection (3).

Eulachon (*Thaleichthys pacificus*) Nass/Skeena Rivers Designatable Unit: COSEWIC assessed three populations of Eulachon in May 2011. Based on that assessment, the committee recommended in its Annual Report to CESCC (9 September 2011) that the Nass/Skeena Rivers population be listed as Threatened under SARA. Subsequently, information was received from the Nisga'a Lisim Government of British Columbia in a letter dated 23 September, 2011 concerning the Nass/Skeena Rivers population that was not available to COSEWIC at the time of the assessment. According to Section 24 of SARA, COSEWIC must review the classification of a wildlife species, if there is reason to believe its status might have changed. At the Species Assessment Meeting held 21-25 November 2011, COSEWIC agreed that a change in status for this population was possible, given the new information and recommended that the Nass/Skeena Rivers population of Eulachon be reassessed. COSEWIC produced a report with the new information and reassessed this population at its spring 2013 Species Assessment Meeting as Special Concern.

White Sturgeon (*Acipenser transmontanus*): This species was assessed as a single population by COSEWIC in April 1990 (Special Concern) and November 2003 (Endangered). Following COSEWIC's 2003 assessment, the Minister split the species into six populations, four of which were placed on Schedule 1. In November 2012, COSEWIC identified and assessed four designatable units for White Sturgeon, two of which were identical to the two populations currently on SARA Schedule 1 (Upper Columbia River, Upper Kootenay River). COSEWIC also identified two further designatable units; the Lower Fraser River population and the Upper Fraser River population, which encompass the remaining populations. COSEWIC confirmed the status of the Upper Columbia River and the Upper Kootney River populations as Endangered, as listed on Schedule 1 of SARA. COSEWIC also assessed the Lower Fraser River population as Threatened and the Upper Fraser River population as Endangered and recommends that they be considered for listing on Schedule 1 of SARA.

Tiger Salamander (*Ambystoma tigrinum)*: Recent genetic information has resulted in a change in the taxonomy of the Tiger Salamander such that it is now recognized as two species. Therefore, at the November 2012 Wildlife Species Assessment Meeting, a new designatable unit structure was approved, with the previously assessed Tiger Salamander (*Ambystoma tigrinum*) now considered as two new species, Eastern Tiger Salamander (*Ambystoma tigrinum*) and Western Tiger Salamander (*Ambystoma mavortium*). The

Carolinian population of the Eastern Tiger Salamander was assessed at that meeting, but the assessment of the Prairie/Boreal population was deferred. The status report for this species with both designatable units will, therefore, be presented to the Minister at a later date. Both designatable units for the Western Tiger Salamander were assessed (Southern Mountain population as Endangered and Prairie/Boreal as Special Concern) and are presented in this annual report.

3. Other Species Assessment Activities:

Emergency Assessments

Section 29 of SARA provides for the listing of a species based on an imminent threat to the survival of the wildlife species under an emergency basis. Section 30 (1) of SARA states that COSEWIC is to prepare a status report on the wildlife species and, within one year after the making of the order, COSEWIC must, in a report in writing to the Minister, (a) confirm the classification of the species; (b) recommend to the Minister that the species be reclassified; or (c) recommend to the Minister that the species be removed from the List.

As reported in COSEWIC's 2012 Annual Report to CESCC, on February 3, 2012 COSEWIC assessed the status of the Little Brown Myotis (*Myotis lucifugus*), the Northern Myotis (*Myotis septentrionalis*) and the Tri-colored Bat (*Perimyotis subflavus*) as Endangered on an emergency basis. COSEWIC is currently finalizing the full status report and will be assessing all three species at the Wildlife Species Assessment meeting in November 2013.

4. Wildlife Species Assessments returned by the Governor in Council (GIC) to COSEWIC for further information or consideration:

Section 27 (1.1) (c) of SARA provides for the Governor in Council to, on the recommendation of the Minister, refer an assessment of the status of a species back to COSEWIC for further information or consideration.

Both Cusk (*Brosme brosme*) and Lake Winnipeg Physa (*Physa* sp.) were reassessed in November 2012. They had been previously assessed by COSEWIC (Cusk in May 2003 as Threatened, Lake Winnipeg Physa in November 2002 as Endangered) but were referred back to COSEWIC by the GIC in 2006. In December 2006, COSEWIC confirmed the original status of each species. As per the 10-year reassessment cycle of COSEWIC, a fully updated status report on Cusk was presented to COSEWIC in November 2012. This assessment resulted in a status of Endangered. A status appraisal summary report was prepared for the Lake Winnipeg Physa and presented to COSEWIC in November 2012; resulting in a status of Data Deficient.

5. Wildlife Species Selected for Status Report Preparation:

Section 15.1 (b) of SARA states that one of the functions of COSEWIC is to "determine when wildlife species are to be assessed, with priority given to those more likely to become extinct".

Following COSEWIC's process for prioritizing species for assessment (as outlined at: http://www.cosewic.gc.ca/eng/sct0/appdx_e1_2_e.cfm), 15 wildlife species from COSEWIC's Species Specialist Subcommittees' candidate lists were chosen by the Committee for status report commissioning (Table 2). None of these species have been assessed by COSEWIC to date.

Table 2 Status Reports to be commissioned in Fall, 2014

COMMON NAME OF SPECIES	SUBCOMMITTEE
1. Magdalen Grasshopper	Arthropods
2. Transverse Lady Beetle	Arthropods
3. Drooping-leaved Beard-moss	Mosses & Lichens
4. Black Ash	ATK Subcommittee
5. Midget Quillwort	Vascular Plants
6. Plains Hog-nosed Snake	Amphibians & Reptiles
7. Schofield's Ctenidium Moss	Mosses & Lichens
8. *Zygodon gracilis* (moss)	Mosses & Lichens
9. Acuteleaf Small Limestone Moss	Mosses & Lichens
10. Bullsnake	Amphibians & Reptiles
11. North Atlantic Lumpfish	Marine Fishes
12. Banded Tigersnail	Molluscs
13. Lark Bunting	Birds
14. Harris's Sparrow	Birds
15. Eastern Painted Turtle & Midland Painted Turtle	Amphibians & Reptiles

6. Annual Subcommittee Meetings:

Aboriginal Traditional Knowledge (ATK) Subcommittee

COSEWIC's Aboriginal Traditional Knowledge Subcommittee is responsible for ensuring that Aboriginal Traditional Knowledge is appropriately accounted for in COSEWIC's assessment process. The Subcommittee consists of members appointed by the Federal Minister of Environment. The Co-chairs of the ATK Subcommittee are members of COSEWIC and provide COSEWIC with their expertise on Aboriginal Traditional Knowledge.

The Subcommittee had another productive year. ATK source reports, which compiled all potential sources of documented ATK for a given species, were completed for species such

as Narwhal, Beluga, and Chinook salmon. In addition, ATK assessment reports, which summarize the relevant content of documented ATK sources, were completed for Caribou, Beluga, Lake Sturgeon and Chinook salmon. These reports were prepared to inform species status assessments.

The subcommittee also reviewed and updated relevant parts of the COSEWIC Operations & Procedures Manual and FAQs on the COSEWIC website. In addition, the following special projects were initiated:

- Candidate justification for the Black Ash (COSEWIC)
- Candidate justification for the Black Ash (ATK perspective)
- Designatable Units of the Beluga (from an ATK perspective)
- Guidance Documents for the use of ATK in the COSEWIC process including the integration of ATK in ATK Source Reports and ATK Assessment Reports.
- Proposal for Community-based ATK gathering for the Narwhal.

COSEWIC extends its sincere gratitude to the Chairs and members of the ATK Subcommittee for their ongoing commitment to ensuring COSEWIC assessments are informed by the best possible information.

Species Specialist Subcommittees

COSEWIC's Species Specialists Subcommittees (SSCs) provide taxonomic expertise to the Committee. Each SSC is led by two Co-chairs and members are recognized Canadian experts in the taxonomic group in question, able to demonstrate high standards of education, experience, and expertise and have a demonstrated knowledge of wildlife conservation. Members are drawn from universities, provincial wildlife agencies, museums, Conservation Data Centres, and other sources of expertise on Canadian species. SSC members support the Co-chairs in developing candidate lists of species to be considered for assessment, commissioning status reports for priority species, reviewing reports for scientific accuracy and completeness, and proposing to COSEWIC a status for each species. Currently, COSEWIC has 10 SSCs: Amphibians and Reptiles, Arthropods, Birds, Freshwater Fishes, Marine Fishes, Marine Mammals, Molluscs, Mosses and Lichens, Terrestrial Mammals and Vascular Plants.

For more information please see http://www.cosewic.gc.ca/eng/sct4/index_e.cfm

SSC meetings take place annually in different locations in Canada or by teleconference held once or twice a year. Observers are invited to attend and public information sessions may also take place.

Aside from their continued work to ensure that high quality Status Reports are brought to each COSEWIC Wildlife Species Assessment Meeting, the COSEWIC SSCs undertook a number of related projects. For example, the Arthropods SSC prepared a report on Crustaceans, which was presented during the November 2012 COSEWIC meeting. The Mollusc SSC continued their work on an electronic freshwater mussels field guide, a bibliography of mollusc conservation, a Canadian list of molluscs and a bibliography of the effects of invasive earthworms on terrestrial gastropods.

In preparation for the next assessment of the Beluga Whale, the Marine Mammal SSC let a contract for a report on the species DU structure, which will be considered for approval at the Spring 2015 COSEWIC Species Assessment Meeting. After the DU structure has been determined, the status assessments of the DUs will be completed.

COSEWIC is extremely grateful for the important work of the Species Specialist Subcommittee members who provide their time and expertise on a volunteer basis.

7. COSEWIC Operations and Procedures:

Section 19 of SARA states that COSEWIC "may make rules respecting the holding of meetings and the general conduct of its activities."

COSEWIC is guided in its activities by an Operations and Procedures Manual that is reviewed between each Wildlife Species Assessment Meeting by COSEWIC's Operations and Procedures Subcommittee, who recommend any necessary changes to the Committee for their approval. During this reporting period, the COSEWIC Operations and Procedures Manual was updated to reflect some minor changes in COSEWIC's procedures. The most notable changes are as follows:

- An update to the COSEWIC Terms of Reference with clarification and inclusion of the duties of jurisdictional members including the importance of their independent expert contribution to the committee
- Update to the ATK Subcommittee Terms of Reference and ATK processes
- Approval of proposal that former members of COSEWIC, with appointments within the last five years, could be considered for the position of Chair of COSEWIC
- Change in definition of quorum from all members to all appointed members

COSEWIC, assuming CESCC agrees, will continue to ensure their procedures are in line with the direction found in its Operations and Procedures Manual.

8. Procedural Working Groups:

These procedural working groups are essential to ensuring COSEWICs operations and procedures are efficient, effective and clearly followed, thus maintaining the quality and consistency of COSEWIC status assessments and processes.

a) Press Release Working Group

This working group is active before and during each Wildlife Species Assessment Meeting on the production of each press release.

b) Criteria Working Group

The Criteria Working Group is responsible for monitoring modifications to the IUCN Red List criteria in order to update COSEWIC's assessment criteria as appropriate.

The Working Group also works on the development and use of the "Threats Calculator", based on an IUCN model. The Threats Calculator is now regularly used in almost all species assessments and has been integrated into species status reports. The Threats Calculator provides a quantitative analysis of the threats to each species and its inclusion has helped facilitate species assessments. A Criteria workshop with a focus on how to use the Threats Calculator was conducted by Dave Fraser, member from British Columbia and Chair of the Criteria Working Group, prior to the Spring 2013 Species Assessment Meeting in Winnipeg, Manitoba. The workshop was designed particularly for the benefit of new members and subcommittee members in the local area. Dave Fraser also gave a presentation on the Threats Calculator to members of the Aboriginal Traditional Knowledge Subcommittee at its meeting June, 2012 in Chase, British Columbia.

c) Species Prioritization Working Group

A Working Group was struck, headed by Dave Fraser, to review "The Guidelines for Developing, Prioritizing and Documenting the COSEWIC Candidate List" (Appendix E1 of the COSEWIC Operations & Procedures Manual). COSEWIC has been using its current guidelines since 2006 and given the importance of identifying species for assessment, it was considered that a review of those Guidelines was warranted. Some proposed changes were presented and discussed and a final updated version of Appendix E1 will be considered for approval at the November 2013 Species Assessment Meeting.

d) Species Bundling Working Group

Under the guidance of the Species Bundling Working Group, chaired by Patrick Nantel of Parks Canada, COSEWIC has recently produced its first multispecies status reports. The Yucca Moths/Soapweed species reports were prepared as a bundle and individually assessed at the Spring 2013 Species Assessment Meeting. Similarly, the information on the three bat species due for assessment in November 2013 is contained in a single status report. The Working Group will also oversee the preparation of an Ecosystem Threats Assessment Report for 32 species which occur in the Southern Okanagan and that are up for a review of classification in the near future.

9. COSEWIC Communications:

Insofar as resources allow, COSEWIC and its Chairs over the years have made every effort to inform managers and the public on the work of the Committee.

During the current reporting period, COSEWIC released two press releases outlining the results of the Fall 2012 and the Spring 2013 Wildlife Species Assessment Meetings. These releases can be found on the COSEWIC website at www.cosewic.gc.ca.

Following each of the above-noted Species Assessment Meetings, the Chair of COSEWIC communicated with the Canadian Wildlife Directors Committee via teleconference, as well as with representatives of the Wildlife Management Boards and members of NACOSAR.

In addition, the Chair of COSEWIC, Dr. Marty Leonard, attended the following meetings and gave presentations on the work of COSEWIC:

- Minister's Round Table, October 2012, where there were representatives from NACOSAR among others, industry (oil and gas, forestry, agriculture) and environmental groups. They discussed the strengths and weaknesses of SARA and spoke in praise of COSEWIC saying how well the process was working, adding that science and ATK/community knowledge have to be the only considerations in assessing species at risk.
- "SARA 10 years Later" workshop held at the University of Ottawa in October 2012, where the Chair talked about how COSEWIC prioritizes species for assessment.
- National Council on Air and Stream Improvement's annual meeting in Montreal, October 2012.The Chair talked about COSEWIC's mandate and processes for identifying and assessing species at risk.
- Canadian Wildlife Directors Committee, May 2013. The Chair provided a brief overview of COSEWIC's structure and processes for new members of the CWDC and then updated the Directors on recent COSEWIC activities.

In addition, the Chair of COSEWIC, Marty Leonard, and Co-chair of the ATK Subcommittee, Donna Hurlburt, attended a species at risk workshop in March, 2013 hosted by the Kwilmu'kw Maw-klusuaqn (Mi'kmaq Rights Initiative) Negotiations Office. Donna made a presentation on behalf of COSEWIC where she explained its structure and mandate and told participants about the work of the ATK Subcommittee.

Marty Leonard and Justina Ray, Co-chair of the Terrestrial Mammals Subcommittee, participated in a Species At Risk Advisory Council sub-committee meeting in Ottawa in April 2013, on how to prioritize species for recovery action. The Chair of COSEWIC made a presentation on how COSEWIC prioritizes species for assessment.

ITEM II – COSEWIC MEMBERSHIP

Section 16 of SARA states that (1) COSEWIC is to be composed of members appointed by the Minister after consultation with the Canadian Endangered Species Conservation Council and with any experts and expert bodies, such as the Royal Society of Canada, that the Minister considers to have relevant expertise. (2) Each member must have expertise drawn from a discipline such as conservation biology, population dynamics, taxonomy, systematics or genetics or from community knowledge or aboriginal traditional knowledge of the conservation of wildlife species. (3) The members are to be appointed to hold office for renewable terms of not more than four years.

1. Membership Changes:

For a current list of members on COSEWIC, please see the COSEWIC website.
http://www.cosewic.gc.ca/eng/sct6/sct6_4_e.cfm

Members from the Federal, Provincial or Territorial jurisdictions are recommended to the Federal Minister of the Environment by the jurisdiction.

The Co-chairs of the ATK Subcommittee, as are all subcommittee members, are nominated by National Aboriginal Organizations and appointed by the Minister of the Environment. Co-chairs are elected by the ATK Subcommittee membership and recommended to the Minister for appointment to that position.

Species Specialist Subcommittee Co-chairs and Non-government Science Members are recommended to the Minister of the Environment by COSEWIC following an in depth review process.

A call for seven Species Specialist Subcommittee Co-chair positions, with terms ending on 31 December 2013, was posted on the COSEWIC website between 23 January and 20 February 2013. Once the call was closed, Selection Committees comprised of both COSEWIC members and Species Specialist Subcommittee members scrutinized the applications following procedures for member selection set out in COSEWIC's Operations & Procedures Manual. The Chairs of each Selection Committee prepared reports summarizing the strengths and weaknesses of the applicants, which were discussed at the Spring 2013 Species Assessment meeting. Candidates were ranked by COSEWIC members and their names and CVs provided to the Federal Minister of the Environment and CESCC in June 2013.

The Vascular Plants taxonomic group has had the highest number of species assessed by COSEWIC in "at risk" categories since its inception (190 of 691 assessed). The Co-chairs of the COSEWIC Vascular Plants Specialist Subcommittee have had the responsibility of not only shepherding new species status reports but also handling numerous updates of previously assessed species in an effort to fulfill the 10-year requirement for review of classification under SARA. This has created and will continue to create a significant and overwhelming burden on the Vascular Plants Specialist Subcommittee Co-chairs. In an effort to alleviate that burden, COSEWIC at its Spring 2013 Species Assessment Meeting approved a proposal to seek an additional Co-chair for the Vascular Plants Specialist Subcommittee.

Assuming CESCC's agreement, COSEWIC will therefore be seeking the appointment of a third Co-chair for the Vascular Plants Specialist Subcommittee once candidates are identified.

ITEM III – WILDLIFE SPECIES ASSESSMENTS

In accordance with Section 25(1) of SARA when COSEWIC completes an assessment of the status of a wildlife species, it must provide the Minister and the Canadian Endangered Species Conservation Council with a copy of the assessment and the reasons for it. A copy of the assessment must also be included on the public registry.

Wildlife Species assessed since the last annual report, including status assigned, reasons for designation (including uncertainties if applicable) and COSEWIC criteria with alphanumeric codes are provided in Appendix I.

The status reports are available in English and French on the Public Registry at the following address: http://www.sararegistry.gc.ca/

ITEM IV – WILDIFE SPECIES ASSESSED BY COSEWIC SINCE ITS INCEPTION

In accordance with Section 25(2) of SARA, COSEWIC must annually prepare a complete list of every wildlife species it has assessed since the coming into force of that section and a copy of that list must be included in the public registry.

The Canadian Species at Risk publication is available on the Public Registry http://www.sararegistry.gc.ca

It includes all wildlife species assessed by COSEWIC since its inception up to and including May 2012.

APPENDICES

1 – Wildlife Species Assessment Results

APPENDIX I

COSEWIC Wildlife Species Assessments (detailed version), November 2012*

Results are grouped by taxon and then by status category. The range of occurrence in Canada (by province, territory or ocean) and history of status designation are provided for each wildlife species.

Mammals

American Badger *jacksoni* subspecies — ***Taxidea taxus jacksoni*** — **Endangered**

Assessment Criteria D1

Reason for Designation
Fewer than 200 of these large weasels remain in southwestern Ontario, where they are vulnerable to land-use changes and mortality from vehicles. Recent surveys suggest that the population is stable but threats continue or are increasing (e.g. road density) and the population remains at risk.

Range ON

Status History
The species was considered a single unit and designated Not at Risk in 1979. Each subspecies was given a separate designation in May 2000. The *jacksoni* subspecies was designated Endangered. Status re-examined and confirmed in November 2012.

American Badger *jeffersonii* subspecies — ***Taxidea taxus jeffersonii*** — **Endangered**

Western population

Assessment Criteria D1

Reason for Designation
Fewer than 250 mature badgers live in the Okanagan Valley-Cariboo region where they are vulnerable to increasing threats of mortality from roadkill and habitat loss associated with the change of open areas to urban or forest environments.

Range BC

Status History
The species was considered a single unit and designated Not at Risk in 1979. Each subspecies was given a separate designation in May 2000; the *jeffersonii* subspecies was designated Endangered. In November 2012, the *jeffersonii* subspecies was further split into two populations (Western and Eastern populations), and the Western population was designated Endangered.

American Badger *jeffersonii* subspecies — ***Taxidea taxus jeffersonii*** — **Endangered**

Eastern population

Assessment Criteria D1

Reason for Designation

As few as 100 mature badgers live in the East Kootenay region where they are vulnerable to increasing threats from roadkill. The loss of open areas to forest succession and urban development is resulting in ongoing habitat decline.

Range BC

Status History
The species was considered a single unit and designated Not at Risk in 1979. Each subspecies was given a separate designation in May 2000; the *jeffersonii* subspecies was designated Endangered. In November 2012, the *jeffersonii* subspecies was further split into two populations (Western and Eastern populations), and the Eastern population was designated Endangered.

American Badger *taxus* subspecies ***Taxidea taxus taxus*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
In the Prairies, this mammal is subject to furbearer harvest but also unmonitored and unregulated mortality by landowners, and the application of rodenticides. The lack of monitoring of total mortality, the limited amount of habitat in cultivated areas, ongoing threat of roadkill, and the projected use of strychnine leads to concern for the species in a large part of its range.

Range AB SK MB ON

Status History
The species was considered a single unit and designated Not at Risk in 1979. Each subspecies was given a separate designation in May 2000; the *taxus* subspecies was designated Not at Risk. Status re-examined and designated Special Concern in November 2012.

Birds

Wood Thrush ***Hylocichla mustelina*** **Threatened**
Assessment Criteria A2b

Reason for Designation
In Canada, this forest-nesting species has shown significant long and short-term declines in population abundance. The species is threatened by habitat loss on its wintering grounds and habitat fragmentation and degradation on its breeding grounds. It also suffers from high rates of nest predation and cowbird parasitism associated with habitat fragmentation on the breeding grounds.

Range ON QC NB NS

Status History
Designated Threatened in November 2012.

Eastern Wood-pewee ***Contopus virens*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This species is one of the most common and widespread songbirds associated with North America's eastern forests. While the species is apparently resilient to many kinds of habitat changes, like most other long-distance migrants that specialize on a diet of flying insects, it has experienced persistent declines over the past 40 years both in Canada and the United States. The 10-year rate of decline (25%) comes close to satisfying the criteria for Threatened. The causes of the decline are not understood, but might be linked to habitat loss or degradation on its wintering grounds in South America or changes in availability of insect prey. If the population declines continue to persist, the species may become Threatened in the foreseeable future.

Range SK MB ON QC NB PE NS

Status History
Designated Special Concern in November 2012.

Reptiles

Massasauga ***Sistrurus catenatus*** **Endangered**
Carolinian population
Assessment Criteria B1ab(i,ii,iii,v)+2ab(i,ii,iii,v); C2a(i); D1

Reason for Designation
The population is reduced to two highly isolated and restricted areas surrounded by intense threats from neighbouring development and subject to illegal exploitation. The sub-populations are small and subject to genetic and demographic stochasticity that endangers future growth. Habitat quality also continues to decline.

Range ON

Status History
The species was considered a single unit and designated Threatened in April 1991. Status re-examined and confirmed in November 2002. Split into two populations in November 2012. The Carolinian population was designated Endangered in November 2012.

Eastern Ribbonsnake ***Thamnophis sauritus*** **Threatened**
Atlantic population
Assessment Criteria C2a(i)

Reason for Designation
Recent extensive survey efforts to quantify the abundance and distribution of this cryptic and hard to identify snake confirm that it is rare and has a very small distribution. However, little is known about population trends. Fluctuations in population numbers and a continuing decline in overall numbers of mature individuals are suspected; both increase the susceptibility to stochastic events. Shoreline development and its associated risk is an increasing threat throughout much of the range.

Range NS

Status History
Designated Threatened in May 2002. Status re-examined and confirmed in November 2012.

Massasauga ***Sistrurus catenatus*** **Threatened**
Great Lakes / St. Lawrence population
Assessment Criteria C2a(i)

Reason for Designation
The number of adults may be fewer than 10,000 and is declining because of continued degradation and loss of habitat, increasing mortality on roads and ongoing persecution of this venomous species.

Range ON

Status History
The species was considered a single unit and designated Threatened in April 1991. Status re-examined and confirmed in November 2002. Split into two populations in November 2012. The Great Lakes / St. Lawrence population was designated Threatened in November 2012.

Eastern Musk Turtle ***Sternotherus odoratus*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This species occupies shallow waters of lakes, rivers, and ponds. In southwestern Ontario, the species has declined substantially and is now restricted to a few tiny, scattered populations. Throughout its Canadian range, this species is vulnerable to increased mortality of adults and juveniles from recreational boating, development and loss of shoreline habitat, and fisheries by-catch. The species has delayed maturity and a low reproductive rate with a small clutch size. Since the previous assessment in 2002, increased survey effort has found more populations in eastern Ontario and adjacent areas of Quebec. The species distribution range remains unchanged, but losses in the southern half of its range make it near Threatened.

Range ON QC

Status History
Designated Threatened in May 2002. Status re-examined and designated Special Concern in November 2012.

Eastern Ribbonsnake ***Thamnophis sauritus*** **Special Concern**
Great Lakes population
Assessment Criteria not applicable

Reason for Designation
The Great Lakes population is relatively widespread and appears to be locally abundant in a few sites. However, quantitative data are lacking on population size and trends, and most information is anecdotal and from protected areas. Wetland and shoreline habitat loss and road development continue at an alarming rate within their range and present a significant threat to the species. Unless those losses are reversed the species is at risk of becoming Threatened. Road mortality and habitat loss are widespread and much of the species distribution occurs in pockets of habitat surrounded by agricultural land, roads and shoreline development.

Range ON QC

Status History
Designated Special Concern in May 2002. Status re-examined and confirmed in November 2012.

Northern Map Turtle ***Graptemys geographica*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
There have been no quantitative, long-term studies of this species in Canada and, therefore, there is limited evidence of recent declines, range contraction or local extirpation of the species. However, the species' long-lived life history with delayed age of maturity and the potential threats to its habitat suggest that it is susceptible to population decline. Significant threats include direct mortality from collisions with motor boats and from commercial fisheries bycatch. Loss and degradation of shoreline habitat is another threat because this wary turtle is readily disturbed by human activity and boating, and shoreline developments interfere with the species' basking and nesting behaviour. Unnaturally high predation of nests by mammalian predators, especially raccoons, is another threat. If not ameliorated, these threats combined with the species' life history will cause the species to become Threatened in Canada.

Range ON QC

Status History
Designated Special Concern in May 2002. Status re-examined and confirmed in November 2012.

Amphibians

Eastern Tiger Salamander ***Ambystoma tigrinum*** **Extirpated**
Carolinian population
Assessment Criteria not applicable

Reason for Designation
This salamander was last seen in southern Ontario in 1915 at Point Pelee. Despite numerous surveys, it has not been seen since that time, and very little suitable habitat remains in this and surrounding areas.

Range ON

Status History
The Tiger Salamander (*Ambystoma tigrinum*) was originally assessed by COSEWIC in November 2001 as three separate populations: Great Lakes population (Extirpated), Prairie / Boreal population (Not at Risk), and Southern Mountain population (Endangered). In November 2012, Tiger Salamander was split into two separate species, Eastern Tiger Salamander (*Ambystoma tigrinum*) and Western Tiger Salamander (*Ambystoma mavortium*), each with two different populations that received separate designations. The Carolinian population of the Eastern Tiger Salamander was assessed as Extirpated.

Western Tiger Salamander ***Ambystoma mavortium*** **Endangered**
Southern Mountain population
Assessment Criteria B1ab(ii,iii,v)c(iv)+2ab(ii,iii,v)c(iv)

Reason for Designation
This large salamander has a range restricted to southern British Columbia which mostly overlaps with populated and modified agricultural areas in the South Okanagan Valley. The species has suffered loss of available breeding habitat through wetland draining, contamination, and stocking with fish. Salamander habitats are fragmented by roads and urban and agricultural developments that continue to expand, resulting in disruption of migration routes, mortality through roadkill, and loss of upland habitat for terrestrial adults. Increased drought and lowering water tables, as well as introduced Bullfrogs, also threaten this species.

Range BC

Status History
The Tiger Salamander (*Ambystoma tigrinum*) was originally assessed by COSEWIC in November 2001 as three separate populations: Great Lakes population (Extirpated), Prairie / Boreal population (Not at Risk), and Southern Mountain population (Endangered). In November 2012, Tiger Salamander was split into two separate species, Eastern Tiger Salamander (*Ambystoma tigrinum*) and Western Tiger Salamander (*Ambystoma mavortium*), each with two different populations that received separate designations. The Southern Mountain population of the Western Tiger Salamander was assessed as Endangered.

Western Tiger Salamander ***Ambystoma mavortium*** **Special Concern**
Prairie / Boreal population
Assessment Criteria not applicable

Reason for Designation
This large salamander remains widely distributed in the Prairie provinces, but it faces numerous threats from habitat loss and fragmentation, fish stocking, and emerging diseases, such as the *Ambystoma tigrinum* virus that can decimate local populations. Salamander habitats are becoming increasingly fragmented by agricultural and oil and gas developments and associated infrastructures and roads. The disruption of migration routes, mortality through roadkill, and deterioration and loss of breeding and upland habitat for terrestrial adults and juveniles lead to concern for the species in a large part of its Canadian range.

Range AB SK MB

Status History
The Tiger Salamander (*Ambystoma tigrinum)* was originally assessed by COSEWIC in November 2001 as three separate populations: Great Lakes population (Extirpated), Prairie / Boreal population (Not at Risk), and Southern Mountain population (Endangered). In November 2012, Tiger Salamander was split into two separate species, Eastern Tiger Salamander (*Ambystoma tigrinum*) and Western Tiger Salamander (*Ambystoma mavortium*), each with two different populations that received separate designations. The Prairie / Boreal population of the Western Tiger Salamander was assessed as Special Concern.

Western Toad ***Anaxyrus boreas*** **Special Concern**
Non-calling population
Assessment Criteria not applicable

Reason for Designation
This species has suffered population declines and population extirpations in the southern part of its range in British Columbia, as well as in the USA. The toads are particularly sensitive to emerging skin disease caused by the amphibian chytrid fungus, which has been linked to global amphibian declines. It is relatively intolerant of urban expansion, conversion of habitat for agricultural use, and habitat fragmentation resulting from resource extraction and road networks. Life history characteristics, including infrequent breeding by females, aggregation at communal, traditionally used breeding sites, and migrations to and from breeding sites, make populations vulnerable to habitat degradation and fragmentation. The species remains widespread, but declines are suspected and projected based on known vulnerabilities and threats.

Range YT NT BC AB

Status History
The species was considered a single unit and designated Special Concern in November 2002. Split into two populations in November 2012. The Non-calling population was designated Special Concern in November 2012.

Western Toad ***Anaxyrus boreas*** **Special Concern**
Calling population
Assessment Criteria not applicable

Reason for Designation
Almost the entire range of the calling population is within Canada. The toads are particularly sensitive to emerging skin disease caused by the amphibian chytrid fungus, which has been linked to global amphibian declines. This species is relatively intolerant of urban expansion, conversion of habitat for agricultural use, and habitat fragmentation resulting from resource extraction and road networks. Life history characteristics, including infrequent breeding by females, aggregation at communal, traditionally used breeding sites, and migrations to and from breeding sites, make populations vulnerable to habitat degradation and fragmentation. The species remains widespread throughout much of their historic range in Alberta and may be expanding their range eastwards. However, declines are suspected and projected based on known vulnerabilities and threats.

Range BC AB

Status History
The species was considered a single unit and designated Special Concern in November 2012. Split into two populations in November 2012. The Calling population was designated Special Concern in November 2012.

Fishes

Cusk ***Brosme brosme*** **Endangered**
Assessment Criteria A2b

Reason for Designation
This species is a large, slow-growing, bottom-living fish that resides in the Gulf of Maine and Scotian Shelf, and which has been declining continuously since 1970. The mature portion of the population has declined by approximately 85% over three generations. There is also strong evidence that its area of occupancy has declined considerably. Average fish size has also declined, consistent with a decline in abundance. Limited management efforts have not been effective in halting the decline.

Range Atlantic Ocean

Status History
Designated Threatened in May 2003. Status re-examined and designated Endangered in November 2012.

Striped Bass ***Morone saxatilis*** **Endangered**
Bay of Fundy population
Assessment Criteria B2ab(iii)

Reason for Designation
This large-bodied fish occurs at only a single known spawning location where it continues to be susceptible to exploitation from recreational fishing, by-catch in commercial fisheries, and from poaching. Habitat degradation continues in areas of historical spawning populations which limits recovery potential.

Range NB NS Atlantic Ocean

Status History
Designated Threatened in November 2004. Status re-examined and designated Endangered in November 2012.

Striped Bass ***Morone saxatilis*** **Endangered**
St. Lawrence River population
Assessment Criteria B1ab(iii)

Reason for Designation
This population was assessed as Extirpated in 2004 and is the subject of a re-introduction effort, using fish from the Miramichi River, that has resulted in natural spawning, some increase in abundance, and an increase in distribution. It is, however, unclear if the population is self-sustaining without continued supplementation. The population is susceptible to by-catch in commercial fisheries, and although the threat of dredging has been reduced, it is still operating.

Range QC Atlantic Ocean

Status History
Designated Extirpated in November 2004. Status re-examined and designated Endangered in November 2012.

White Sturgeon ***Acipenser transmontanus*** **Endangered**
Upper Fraser River population
Assessment Criteria C1

Reason for Designation
This large-bodied fish occurs at a small number of locations in the upper Fraser River. The species has declined considerably over the last century (to about 1,300 adults) and will likely continue to decline owing to localized habitat degradation and recruitment failure.

Range BC

Status History
The species was considered a single unit and designated Special Concern in April 1990. Status re-examined and designated Endangered in November 2003. Split into four populations in November 2012. The Upper Fraser River population was designated Endangered in November 2012.

White Sturgeon ***Acipenser transmontanus*** **Endangered**
Upper Columbia River population
Assessment Criteria A3bc+4bc; C1+2a(ii); E

Reason for Designation
This large-bodied fish occurs at a small number of locations (5) in the upper Columbia River. The species has declined considerably over the last century, to fewer than 850 adults, owing to habitat fragmentation and degradation, and recruitment failure. Modeling predicts an 80% chance of extinction of the population within the next two generations.

Range BC

Status History
The species was considered a single unit and designated Special Concern in April 1990. Status re-examined and designated Endangered in November 2003. Split into four populations in November 2012. The Upper Columbia River population was designated Endangered in November 2012.

White Sturgeon ***Acipenser transmontanus*** **Endangered**
Upper Kootenay River population
Assessment Criteria A3bc+4bc; C1+2a(ii); E

Reason for Designation
This large-bodied fish occurs at only one or two locations in the upper Kootenay River. The species has declined considerably over the last century, to fewer than 1,000 adults, owing to habitat fragmentation and degradation, and recruitment failure. Modeling predicts an 80% chance of extinction of the population within the next two generations.

Range BC

Status History
The species was considered a single unit and designated Special Concern in April 1990. Status re-examined and designated Endangered in November 2003. Split into four populations in November 2012. The Upper Kootenay River population was designated Endangered in November 2012.

Bull Trout ***Salvelinus confluentus*** **Threatened**

Saskatchewan - Nelson Rivers populations

Assessment Criteria A4de

Reason for Designation
This freshwater fish is broadly distributed east of the Rocky Mountains. It is a slow-growing and late maturing species that thrives in cold, pristine waters and often requires long unimpeded migratory routes joining spawning to adult habitat. Historical range contractions now limit the populations to the foothills and east slopes of the Rocky Mountains, likely in response to habitat deterioration and reduced habitat connectivity through damming of the larger rivers. No populations are abundant and more than half show evidence of decline. The primary and persistent threats to these populations include competition and hybridization with introduced Eastern Brook Trout and climate induced increases in water temperature. Although legal harvest has been eliminated, this species is highly catchable and is therefore likely susceptible to catch and release mortality in many areas that are accessible to recreational anglers. Consequently, an aggregate decline in abundance of $\geq$ 30% over the next three generations is projected.

Range AB

Status History
Designated Threatened in November 2012.

Northern Wolffish ***Anarhichas denticulatus*** **Threatened**

Assessment Criteria Met criteria for Endangered, A2b, but designated Threatened, A2b, because there have been small increases over most of the range since the early 2000's in both abundance and area of occupancy.

Reason for Designation
This species underwent strong declines in both abundance and in range size during the 1980s. For the next decade there was little change, but since about 2002 there have been small increases in both range size and abundance. These have been in parallel with recovery measures, including mandatory release of individuals taken as bycatch. While these recent increases are encouraging, the species is still at very low levels compared with the beginning of research surveys in the 1970s. Although there has been a general decrease in the level of fishing over its range, its recovery may still be limited by bycatch in fisheries in the deep waters in which it occurs.

Range Arctic Ocean Atlantic Ocean

Status History
Designated Threatened in May 2001. Status re-examined and confirmed in November 2012.

Salish Sucker ***Catostomus* sp. cf. *catostomus*** **Threatened**

Assessment Criteria D2

Reason for Designation
This small fish has a restricted and fragmented range in southwestern British Columbia where it is susceptible to a continuing decline in habitat quality. An improvement in status from Endangered stems from a small increase in the number of known locations (from 9 to 14), including one location thought to have been extirpated, and some improvements in quality of habitat in areas subject to restoration.

Range BC

Status History
Designated Endangered in April 1986. Status re-examined and confirmed in November 2002. Status re-examined and designated Threatened in November 2012.

Spotted Wolffish ***Anarhichas minor*** **Threatened**

Assessment Criteria Met criteria for Endangered, A1b, but designated Threatened, A1b, because there have been increases in abundance and area of occupancy since the mid-1900's, in parallel with a reduction in the threat due to fishing.

Reason for Designation
This species underwent strong declines from the late 1970s until the mid 1990s, but since then there has been some recovery over most of its Canadian range. This is indicated by both increases in abundance and area of occupancy. These increases parallel a reduction in bottom fisheries that had a high incidental catch of this species, as well as introduction of recovery measures including mandatory release. While these recent increases are encouraging, the species is still at low levels compared with the beginning of the research surveys.

Range Arctic Ocean Atlantic Ocean

Status History
Designated Threatened in May 2001. Status re-examined and confirmed in November 2012.

White Sturgeon ***Acipenser transmontanus*** **Threatened**

Lower Fraser River population

Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
This large-bodied fish occurs in a small area and number of locations in the lower Fraser River Valley. It has declined greatly in abundance over the last 100 years and, although adult abundances now appear to be stable or increasing slightly, habitat degradation continues and fish are subject to mortality from by-catch in commercial salmon fisheries as well as mortality associated with a growing catch-and-release recreational fishery.

Range BC

Status History
The species was considered a single unit and designated Special Concern in April 1990. Status re-examined and designated Endangered in November 2003. Split into four populations in November 2012. The Lower Fraser River population was designated Threatened in November 2012.

Atlantic Wolffish ***Anarhichas lupus*** **Special Concern**

Assessment Criteria Met criteria for Threatened, A1b, but designated Special Concern because there have been increases in abundance and area of occupancy since the mid-1990s, in parallel with a reduction in the threat due to fishing.

Reason for Designation
This species underwent steep declines in both abundance and area of occupancy over much of its range from the 1980s until the mid 1990s, including its historical stronghold in waters east and north of Newfoundland. Since then it has been increasing in abundance and area of occupancy. While these recent increases are encouraging, the species remains at low abundance compared to the early 1980s. Population increases have probably been aided by reduced commercial fisheries, which take wolffish as bycatch. There have been continuing declines in abundance on the Scotian Shelf and in the Southern Gulf of St. Lawrence, where historically there were fewer individuals than areas to the east and north.

Range Arctic Ocean Atlantic Ocean

Status History
Designated Special Concern in November 2000. Status re-examined and confirmed in November 2012.

Bull Trout ***Salvelinus confluentus*** **Special Concern**

South Coast British Columbia populations

Assessment Criteria not applicable

Reason for Designation
This freshwater fish exists in five large river systems in this area. The population sizes are unknown for three of the rivers but are likely not large. This is a slow-growing and late maturing species that thrives in cold, pristine waters, and many populations require long unimpeded migratory routes joining spawning to adult habitat. Therefore the

species is particularly vulnerable to habitat degradation, fragmentation of river networks by dams, negative effects from the invasion of non-native Eastern Brook Trout, and overharvest. The anadramous life history form found in these populations is unique within this species.

Range BC

Status History
Designated Special Concern in November 2012.

Bull Trout ***Salvelinus confluentus*** **Special Concern**
Western Arctic populations
Assessment Criteria not applicable

Reason for Designation
This freshwater fish is broadly distributed throughout the Western Arctic drainage although populations are never abundant. There are areas with evidence of decline in numbers and distribution but quantitative estimates for the whole range are lacking. This is a slow-growing and late maturing species that thrives in cold, pristine waters, and many populations require long unimpeded migratory routes joining spawning to adult habitat. Therefore the species is particularly vulnerable to habitat degradation, fragmentation of river networks by dams, negative effects from the invasion of the non-native Eastern Brook Trout, and overharvest, but these threats are localized within its range.

Range YT NT BC AB

Status History
Designated Special Concern in November 2012.

Striped Bass ***Morone saxatilis*** **Special Concern**
Southern Gulf of St. Lawrence population
Assessment Criteria not applicable

Reason for Designation
This large-bodied fish has increased strongly in abundance recently, but is known from only a single spawning location and the population continues to be susceptible to high rates of poaching as well as by-catch in legal fisheries.

Range QC NB PE NS Atlantic Ocean

Status History
Designated Threatened in November 2004. Status re-examined and designated Special Concern in November 2012.

Bull Trout ***Salvelinus confluentus*** **Not at Risk**
Pacific populations
Assessment Criteria not applicable

Reason for Designation
This freshwater fish is broadly distributed throughout Pacific drainages. Although populations are never abundant, there are many dispersed populations across this area. There is no overall evidence of declines in abundance of mature adults and distribution. Although this is a slow-growing and late maturing species that thrives in cold, pristine waters, and requires unimpeded migratory routes joining spawning to adult habitat, the risk level is assessed as low in these populations.

Range BC

Status History
Designated Not at Risk in November 2012.

Bull Trout ***Salvelinus confluentus*** **Data Deficient**

Upper Yukon Watershed populations

Assessment Criteria not applicable

Reason for Designation
This freshwater fish is believed to be distributed in the upper Yukon River drainage but information on population sizes and trends is not available. This is a slow-growing and late maturing species that thrives in cold, pristine waters, and many populations require long unimpeded migratory routes joining spawning to adult habitat. In general, the species is vulnerable to habitat degradation, fragmentation of river networks by dams, and overharvest, but specific threats in these populations are largely unknown and likely minor in this remote watershed.

Range YT BC

Status History
Species considered in November 2012 and placed in the Data Deficient category.

Arthropods

Mottled Duskywing ***Erynnis martialis*** **Endangered**

Great Lakes Plains population

Assessment Criteria B2ab(i,ii,iii,iv,v)

Reason for Designation
The population has disappeared from Quebec and now occupies a few, isolated locations in southern Ontario that continue to decline in number. Population numbers are also declining. The species is primarily threatened by habitat fragmentation, but also by habitat loss and degradation through, for example, development, natural succession, fire suppression, and extensive deer browsing.

Range ON QC

Status History
Designated Endangered in November 2012.

Mottled Duskywing ***Erynnis martialis*** **Endangered**

Boreal population

Assessment Criteria B2ab(i,ii,iii,iv,v)

Reason for Designation
This butterfly is declining throughout its North American range. In Canada, this particular population is restricted to a small area of pine woodland in southeastern Manitoba. All locations are under threat. One location is predicted to become flooded within ten years and the other four are expected to experience substantial population declines due to natural forest succession. The species' habitat at all locations is at risk of Btk spraying to control Gypsy Moth. Any currently undocumented sites are likely to be experiencing a similar range of threats.

Range MB

Status History
Designated Endangered in November 2012.

Riverine Clubtail ***Stylurus amnicola*** **Endangered**

Great Lakes Plains population

Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)

Reason for Designation
This dragonfly population is restricted to two small creeks that flow into Lake Erie. The impact of a variety of threats was determined to be very high, suggesting that there may be a substantial decline over the next decade. The threats include water withdrawal from the streams, pollution, and invasive alien species of fish that would feed on dragonfly larvae.

Range ON

Status History
Designated Endangered in November 2012.

Gibson's Big Sand Tiger Beetle ***Cicindela formosa gibsoni*** **Threatened**
Assessment Criteria E

Reason for Designation
This very restricted subspecies, with most of its populations in Canada, requires open sand dune areas. This habitat is declining throughout the Prairies as a result of a dune stabilization trend. Loss of historical ecological processes such as bison-induced erosion, fire, and activities of native people, as well as possible accelerators such as increase in atmospheric CO_2, nitrogen deposition, and invasive alien plant species, may also be important factors in open sand reduction. There are believed to be fewer than 73 sites and a 10% possibility of extinction within 100 years based on rates of decline of open sand dunes.

Range AB SK

Status History
Designated Threatened in November 2012.

Georgia Basin Bog Spider ***Gnaphosa snohomish*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This small (1 cm) wetland spider has a very limited global distribution, occurring in the Georgia Basin and western Washington State. In Canada, it is known from only 4 sites in southern British Columbia. These populations may become threatened over a very short time period. The greatest threat is inundation by sea water since three of the four known sites are less than 3 m above sea level and are at risk from projected increases in the frequency and severity of storms.

Range BC

Status History
Designated Special Concern in November 2012.

Greenish-white Grasshopper ***Hypochlora alba*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This distinctive grasshopper is restricted to dry mixed grass prairie in southernmost Saskatchewan and southwestern Manitoba. Most of the Canadian population is found in only a few sites with many sites having very small populations. There is evidence that there has been a decline in the western part of the range. A number of threats have been documented including conversion to tame pasture, pesticide use and overgrazing. Re-establishment of lost populations and rescue effect are limited by the fact that this species is mostly flightless, although some Canadian habitat is continuous across the border.

Range AB SK MB

Status History
Designated Special Concern in November 2012

Riverine Clubtail ***Stylurus amnicola*** **Data Deficient**
Boreal population
Assessment Criteria not applicable

Reason for Designation
The isolated population of this dragonfly has been found on tributaries of the Gatineau and Ottawa rivers, and near Quebec City (it was first discovered near Hull). The lack of necessary data, including the likelihood of additional undocumented sites, resulted in a status of Data Deficient.

Range QC

Status History
Species considered in November 2012 and placed in the Data Deficient category.

Riverine Clubtail ***Stylurus amnicola*** **Data Deficient**
Prairie population
Assessment Criteria not applicable

Reason for Designation
This dragonfly population was discovered in 2004 along the Assiniboine and Red Rivers and more recently in Winnipeg. The lack of necessary data, including the likelihood of additional undocumented sites, resulted in a status of Data Deficient.

Range MB

Status History
Species considered in November 2012 and placed in the Data Deficient category.

Molluscs

Lake Winnipeg Physa ***Physa* sp.** **Data Deficient**
Assessment Criteria not applicable

Reason for Designation
This freshwater snail was described as being endemic to Lake Winnipeg, Manitoba and assessed as Endangered by COSEWIC in 2002. Despite annual searches, the last observation of the taxon was in 2006. The taxonomic uncertainty and the lack of genetic material for further study have resulted in a designation of Data Deficient.

Range MB

Status History
Designated Endangered in November 2002. Species considered in November 2012 and placed in the Data Deficient category.

Vascular Plants

Fernald's Braya ***Braya fernaldii*** **Endangered**
Assessment Criteria A3bce; B1ab(iii,v)+2ab(iii,v); E

Reason for Designation
This small perennial plant, endemic to the limestone barrens of the Great Northern Peninsula of Newfoundland, is at increased risk over its limited range due to numerous threats. Ongoing habitat loss and degradation, combined with a non-native agricultural moth, result in low rates of survival and reproduction. These threats and the additional impact of climate change lead to the prediction that the species will go extinct in the wild within the next 80 years.

Range NL

Status History
Designated Threatened in April 1997. Status re-examined and confirmed in May 2000. Status re-examined and designated Endangered in November 2012.

Pink Coreopsis ***Coreopsis rosea*** **Endangered**
Assessment Criteria B1ab(iii,v)+2ab(iii,v)

Reason for Designation

This showy perennial lake and river shore plant has a restricted global range with a disjunct distribution limited to southernmost Nova Scotia. There is a concern regarding potential widespread and rapid habitat degradation due to

recent increases in levels of phosphorus in lakes, tied to a rapidly growing mink farming industry. Though the population size is now known to be larger than previously documented due to greatly increased survey effort, the species is also at risk due to the continuing impacts associated with shoreline development, and historical hydro-development.

Range NS

Status History
Designated Endangered in April 1984. Status re-examined and confirmed Endangered in April 1999, May 2000, and November 2012.

Plymouth Gentian ***Sabatia kennedyana*** **Endangered**
Assessment Criteria B1ab(iii,v)+2ab(iii,v)

Reason for Designation
This showy perennial lakeshore plant has a restricted global range with a disjunct distribution limited to southernmost Nova Scotia. There is a concern regarding potential widespread and rapid habitat degradation due to recent increases in levels of phosphorus in lakes, tied to a rapidly growing mink farming industry. Though the population size is now known to be larger than previously documented due to greatly increased survey effort, the species is also at risk due to the continuing impacts associated with shoreline development, and historical hydro-development.

Range NS

Status History
Designated Threatened in April 1984. Status re-examined and confirmed in April 1999 and May 2000. Status re-examined and designated Endangered in November 2012.

Crooked-stem Aster ***Symphyotrichum prenanthoides*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This perennial aster is restricted in Canada to a small area of the Carolinian forest near the shore of Lake Erie in Ontario. The species has experienced historic declines, but no recent losses have been documented and overall numbers appear to be stable. Invasive plants occur at a number of sites and have the potential to negatively impact the species in the future. Additional threats include indirect impacts of Emerald Ash Borer, and roadside maintenance. The species has a restricted distribution in Canada, and its persistence will likely require ongoing monitoring and management of invasive species.

Range ON

Status History
Designated Special Concern in April 1999. Status re-examined and designated Threatened in May 2002. Status re-examined and designated Special Concern in November 2012.

*The assessment of the Eastern Tiger Salamander (Prairie population), *Ambystoma tigrinum*, was withdrawn to include new information. It is anticipated that this wildlife species will be re-considered by COSEWIC in November 2013.

01/11/2013

COSEWIC Wildlife Species Assessments (detailed version), May 2013*

Results are grouped by taxon and then by status category. The range of occurrence in Canada (by province, territory or ocean) and history of status designation are provided for each wildlife species.

Mammals

Sei Whale ***Balaenoptera borealis*** **Endangered**
Pacific population
Assessment Criteria A2ad; D1

Reason for Designation
Individuals off the coast of British Columbia are likely part of a northeastern Pacific population that was depleted by whaling. The infrequency of observations (visual and acoustic) suggests that numbers in Canada are currently very low (well below 250 mature individuals) and reports of this species are similarly rare in adjacent US waters to the north (Alaska) and south (Washington, Oregon, California). Threats to this species along the coast of British Columbia are poorly known, but may include ship strikes, anthropogenic noise, and long-term changes in climate (which could affect the abundance of their zooplankton prey).

Range Pacific Ocean

Status History
Designated Endangered in May 2003. Status re-examined and confirmed in May 2013.

Birds

Northern Bobwhite ***Colinus virginianus*** **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii); D1

Reason for Designation
Owing to habitat loss, this grassland bird's population has declined dramatically over historical levels and shows no sign of recovery. There is only one viable population remaining in Canada, located on Walpole Island, Ontario. The status of this species is complicated by the presence of introduced pen-reared birds whose genetic composition is believed to pose a threat to the remaining native population.

Range ON

Status History
Designated Endangered in April 1994. Status re-examined and confirmed in November 2003 and May 2013.

Bank Swallow ***Riparia riparia*** **Threatened**
Assessment Criteria A2b

Reason for Designation
This widespread species has shown a severe long-term decline amounting to a loss of 98% of its Canadian population over the last 40 years. As with many other aerial insectivores, the decline continues, albeit at a slower rate since the 1980s. Breeding Bird Survey data from 2001-2011 indicate a potential loss of 31% of the population during that 10-year time period. The reasons for these declines are not well understood, but are likely driven by the cumulative effects of several threats. These include loss of breeding and foraging habitat, destruction of nests during aggregate excavation, collision with vehicles, widespread pesticide use affecting prey abundance, and impacts of climate change, which may reduce survival or reproductive potential.

Range YT NT BC AB SK MB ON QC NB PE NS NL

Status History
Designated Threatened in May 2013.

Northern Goshawk *laingi* subspecies ***Accipiter gentilis laingi*** **Threatened**

Assessment Criteria C2a(ii)

Reason for Designation
Over half of the global range of this subspecies occurs in coastal British Columbia, where it favours mature coniferous forest. This non-migratory bird needs a relatively large home range that contains a good food supply. Despite some recent habitat protection efforts, continuing habitat loss is predicted, in part because of anticipated short rotation times in forest harvest. On Haida Gwaii, populations are very low and face an added risk from declines of prey species due to forest understory losses associated with high levels of browsing from an introduced population of deer.

Range BC

Status History
Designated Special Concern in April 1995. Status re-examined and designated Threatened in November 2000 and May 2013.

Reptiles

Great Basin Gophersnake ***Pituophis catenifer deserticola*** **Threatened**

Assessment Criteria A3b

Reason for Designation
This large, non-venomous snake is restricted in Canada to the dry southern interior of British Columbia, where it occurs within landscapes fragmented by roads, orchards, vineyards, and houses. Because of its low reproductive rate and late age at maturity, seasonal migrations, and habit of lingering on warm roads, this snake is especially vulnerable to road mortality. This mortality, together with habitat loss and degradation and intentional and inadvertent killing, are expected to continue and result in population declines over the next 24 years (3 generations).

Range BC

Status History
Designated Threatened in May 2002. Status re-examined and confirmed in May 2013.

Fishes

Pugnose Shiner ***Notropis anogenus*** **Threatened**

Assessment Criteria Does not meet any criteria, but designated Threatened because of a small area of occupancy, declining habitat quality, and concerns that many subpopulations may not be viable.

Reason for Designation
The species has a small area of occupancy and consists of numerous small populations, many of which may not be viable. At least two populations have been extirpated. Habitat degradation and loss continues to threaten populations, particularly in the western part of their distribution in the Lake Huron, Lake St. Clair and Lake Erie watersheds.

Range ON

Status History
Designated Special Concern in April 1985. Status re-examined and designated Endangered in November 2002. Status re-examined and designated Threatened in May 2013.

Bridle Shiner ***Notropis bifrenatus*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This species comes close to meeting Threatened status with reductions in the abundance of adults inferred from declines in the species' range. Threats to habitat are most severe in the central part of its distribution in Quebec, where intensive agriculture results in substantial turbidity, sedimentation, eutrophication, and loss of aquatic vegetation. The species may become Threatened if factors suspected of negatively influencing its persistence are not reversed.

Range ON QC

Status History
Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001 and May 2013.

Eulachon ***Thaleichthys pacificus*** **Special Concern**
Nass / Skeena Rivers population
Assessment Criteria not applicable

Reason for Designation
This short-lived species spends over 95% of its life in the marine environment. It spawns in the lower reaches of two rivers in northern British Columbia where its spawning areas are small (<500 km^2). Recent information from this area indicates the population appears stable and threats in the freshwater environment are considered to be small. However, the abundance of the species in adjacent areas has declined substantially in the recent past. The causes of these declines are poorly understood and are likely to be due to threats in both the spawning habitat and the marine environment. Threats in the marine environment would also affect the Nass and Skeena rivers population. This population could become Threatened in a relatively short period of time if marine survival deteriorates or threats in the spawning area increase.

Range BC Pacific Ocean

Status History
Designated Threatened in May 2011. Status re-examined and designated Special Concern in May 2013.

Arthropods

Five-spotted Bogus Yucca Moth ***Prodoxus quinquepunctellus*** **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
The Five-spotted Bogus Yucca Moth is known from only two sites in Canada, one of which was discovered in 2011. This moth species is an obligate stem borer on the stalks of Soapweed. Larval survival is dependent on the mutualistic relationship between the Soapweed and its pollinator Yucca Moth. The flowers on non-pollinated Soapweed stalks whither faster than pollinated stalks, resulting in almost complete mortality of immature life stages of Five-spotted Bogus Yucca Moth. The loss of flowers or seeds as a result of ungulate herbivory is an ongoing threat, while in the long term Soapweed populations may be limited by the lack of fire and other disturbances that provide sites for the establishment of seedlings.

Range AB

Status History
Designated Endangered in April 2006. Status re-examined and confirmed in May 2013.

Non-pollinating Yucca Moth ***Tegeticula corruptrix*** **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
Only two populations of the Non-pollinating Yucca Moth are known from an extremely small and restricted area. One site has a small and fluctuating moth population, while only a single adult was observed from 1998-2011 at the other site. This moth species is an obligate seed parasite, the larvae feeding on Soapweed seeds. It relies on the mutualistic relationship between the Soapweed and its pollinator Yucca Moth, as fruit production is needed by larvae of the Non-pollinating Yucca Moth. The loss of flowers or seeds as a result of ungulate herbivory is an ongoing threat, while in the long term Soapweed populations may be limited by the lack of fire and other disturbances that provide sites for the establishment of seedlings.

Range AB

Status History
Designated Endangered in April 2006. Status re-examined and confirmed in May 2013.

Yucca Moth ***Tegeticula yuccasella*** **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
Only two populations of the Yucca Moth are known from an extremely small and restricted area. This moth species has an obligate mutualistic relationship with Soapweed; Yucca Moth is the sole pollinator of Soapweed and its larvae depend on Soapweed seeds as a food source. One population may not be sustainable as it persists with human intervention that prevents severe herbivory of the flowers, fruits and stalks by wild ungulates. The Non-pollinating Yucca Moth larvae consume Soapweed seeds and compete with Yucca Moth for food. The loss of flowers or seeds as a result of ungulate herbivory is an ongoing threat, while in the long term Soapweed populations may be limited by the lack of fire and other disturbances that provide sites for the establishment of seedlings.

Range AB

Status History
Designated Endangered in May 2002. Status re-examined and confirmed in May 2013.

Dun Skipper *vestris* subspecies ***Euphyes vestris vestris*** **Threatened**
Assessment Criteria C1

Reason for Designation
This species has a small population found in a restricted range in southwestern British Columbia, where it occurs in moist, open habitats, including meadows, wetlands, and disturbed sites. Meadows and wetlands are declining in area and quality owing to natural succession, residential and commercial development, and invasive plants. Disturbed sites are inherently ephemeral and rapidly becoming unsuitable due to native and invasive plant succession. This is a rare species, and despite significant search effort over the last decade, few new sites have been located.

Range BC

Status History
Designated Threatened in November 2000. Status re-examined and confirmed in May 2013.

Island Tiger Moth ***Grammia complicata*** **Threatened**
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
This near endemic moth has a small distribution and is restricted to only 5 locations in the Georgia Basin in British Columbia. Much of its habitat has been destroyed and the quality of what remains is declining due to ongoing residential and commercial development, recreational activities, invasive or non-native species, and vegetation succession that has changed due to disruption of former fire regimes.

Range BC

Status History
Designated Threatened in May 2013.

Molluscs

Puget Oregonian ***Cryptomastix devia*** **Extirpated**
Assessment Criteria not applicable

Reason for Designation
This large land snail is known in Canada from only three old records (1850-1905) from Vancouver Island and the Lower Fraser Valley of British Columbia. Extensive searches within the historical range have failed to find the species.

Range BC

Status History
Designated Extirpated in November 2002. Status re-examined and confirmed in May 2013.

Kidneyshell ***Ptychobranchus fasciolaris*** **Endangered**
Assessment Criteria B1ab(iii,iv)+2ab(iii,iv)

Reason for Designation
By 2001, this species had been lost from about 70% of its historical range in Canada due to the impacts of the Zebra Mussel and habitat loss from land use practices. It is now restricted to the East Sydenham and Ausable rivers, Lake St. Clair delta, and Medway Creek of the Thames River. The population in Lake St. Clair is close to extirpation. Both Ausable and East Sydenham river populations appear to be reproducing, but populations in Medway Creek and Lake St. Clair are not reproducing. Populations are threatened by pollution from agriculture, urban and road runoff sources, and invasive species (dreissenids and Round Goby).

Range ON

Status History
Designated Endangered in May 2003. Status re-examined and confirmed in May 2013.

Lilliput ***Toxolasma parvum*** **Endangered**
Assessment Criteria B2ab(iii)

Reason for Designation
This species has a fairly restricted range in Canada, confined to tributaries of Lake St. Clair, Lake Erie, and Lake Ontario. Populations once found in the open Canadian waters of Lake St. Clair, Lake Erie and the Detroit River have disappeared. Overall, the species has lost 40% of its former range in Canada. The invasion of freshwater habitat by the exotic Zebra and Quagga mussels, combined with pollution from urban development and sedimentation are the main cause of populations disappearing and the range shrinking.

Range ON

Status History
Designated Endangered in May 2013.

Oregon Forestsnail ***Allogona townsendiana*** **Endangered**
Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)

Reason for Designation
This large land snail is endemic to western North America. In Canada, it occurs mainly in the Lower Fraser Valley, the most densely populated and highly fragmented region of British Columbia. It also has been found at a single site on Vancouver Island. Habitat loss due to residential and commercial development continues to fragment and isolate remaining populations.

Range BC

Status History
Designated Endangered in November 2002. Status re-examined and confirmed in May 2013.

Round Hickorynut ***Obovaria subrotunda*** **Endangered**
Assessment Criteria A2ace; B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)

Reason for Designation
The Canadian population of this species has declined by 75-95% over the last 10 years, with an estimated 99% decline over the last 30 years. Populations in the Grand and Thames rivers are extirpated and populations in the Sydenham River and Lake St. Clair have declined to very low levels. Losses and declines are due to the combined effects of pollution from agriculture and residential runoff, and the impacts of invasive species like the Zebra Mussel.

Range ON

Status History
Designated Endangered in May 2003. Status re-examined and confirmed in May 2013.

Threehorn Wartyback ***Obliquaria reflexa*** **Threatened**
Assessment Criteria B2ab(iii)

Reason for Designation
This rare species historically occurred in the Great Lakes drainages including Lake St. Clair, western Lake Erie, and the Grand, Thames, and Detroit rivers. The species has not been found since 1992 in Lake St. Clair and the Detroit River and may be extirpated there due largely to the impacts of Zebra and Quagga mussels. It was last recorded from the Canadian side of Lake Erie in 1997. Pollution (sediment loading, nutrient loading, contaminants and toxic substances) related to both urban and agricultural activities represents a high and continuing threat at the three remaining riverine locations.

Range ON

Status History
Designated Threatened in May 2013.

Haida Gwaii Slug ***Staala gwaii*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This small slug is a relict of unglaciated refugia on Haida Gwaii and on the Brooks Peninsula of northwestern Vancouver Island. It represents a recently described species and genus, and is found nowhere else in the world. It lives mostly in cool, moist microhabitats in the subalpine zone, but it has also been found in a few forested sites. Grazing and browsing by introduced deer on Haida Gwaii have greatly modified the species' habitat and have probably reduced its population; this grazing is apparently increasing at higher elevations. Climate change also threatens to reduce the extent of the slug's preferred subalpine habitat.

Range BC

Status History
Designated Special Concern in May 2013.

Warty Jumping-slug ***Hemphillia glandulosa*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This small slug has a restricted range and patchy distribution on Vancouver Island, where it exists at the northern extremity of its range. Habitat loss and fragmentation, mainly from forestry activities, disturb the shady, moist forest floor conditions and coarse woody debris required by the slugs and may be restricting dispersal movements. Residential and recreational developments are emerging as a new threat on the southwest coast of the island. The low numbers of scattered populations render it vulnerable to both natural and human disturbances.

Range BC

Status History
Designated Special Concern in May 2003. Status re-examined and confirmed in May 2013.

Vascular Plants

Hairy Braya ***Braya pilosa*** **Endangered**
Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)

Reason for Designation
This plant is restricted globally to a very small area in the Northwest Territories. It is endangered by the loss of habitat through very rapid coastal erosion and saline wash resulting from storm surges, and by permafrost melting. These events appear to be increasing in frequency and severity as a consequence of a significant reduction in sea ice cover on the Beaufort Sea and changes in weather patterns. These indirect impacts of climate change are expected to continue into the foreseeable future.

Range NT

Status History
Designated Endangered in May 2013.

Slender Bush-clover ***Lespedeza virginica*** **Endangered**
Assessment Criteria B1ab(i,ii,iii)+2ab(i,ii,iii); D1

Reason for Designation
This perennial species occupies small patches of remnant tallgrass prairie and savanna at just one location in southern Ontario, where it is at risk from the combined impacts of a lack of natural disturbance by periodic fires and the presence of invasive plant species. There is a continuing decline in the quality and area of habitat available for the plant.

Range ON

Status History
Designated Endangered in April 1986. Status re-examined and confirmed Endangered in April 1999, May 2000, and May 2013.

Silky Beach Pea ***Lathyrus littoralis*** **Threatened**
Assessment Criteria B2ab(ii,iii,iv); C2a(i); D1

Reason for Designation
This plant of coastal dunes, which has much of its global range in Canada, is threatened because of competition with invasive alien plants, off-road vehicles, trampling, herbivory, and a decline in suitable habitat associated with more extreme and frequent storm surges due to climate change. The species' restricted distribution, the very small number of individuals, and the small number of subpopulations make the species at risk.

Range BC

Status History
Designated Threatened in May 2013.

Soapweed ***Yucca glauca*** **Threatened**
Assessment Criteria Does not strictly meet any criteria, but assessed Threatened because of interdependency with its Endangered sole pollinator.

Reason for Designation
This long-lived perennial is known from only three sites in southeastern Alberta and southwestern Saskatchewan, where it occurs mainly on south facing coulee slopes. Plants are pollinated exclusively by Yucca Moth, which lays eggs in the flowers. In Canada, the species reproduces almost exclusively by vegetative spread. Seed production is limited by low numbers of Yucca Moth pollinators, while seedling establishment is negatively impacted by lack of natural disturbance, including fire suppression. Herbivory of flowering stalks by native ungulates also limits seed set. Despite improved management to limit the impact of threats, this perennial is designated Threatened. It is the only host for Yucca Moth, Non-pollinating Yucca Moth and Five-spotted Bogus Yucca Moth, all of which were assessed as Endangered.

Range AB SK

Status History
Designated Special Concern in April 1985. Status re-examined and designated Threatened in May 2000 and May 2013.

Spiked Saxifrage ***Micranthes spicata*** **Threatened**

Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
This tall wildflower is one of a group of species found only in unglaciated areas of Yukon and Alaska. It lives along creek margins and is prone to the historical and current effects of habitat disturbance, such as placer mining. In addition, habitat is increasingly affected by natural disturbances such as flash flooding, forest fires, and landslides that may be increasing in frequency and severity due to climate change.

Range YT

Status History
Designated Threatened in May 2013

*The assessment of Ashton's Cuckoo Bumble Bee (*Bombus bohemicus*) was deferred to a later meeting to allow inclusion of additional information to better understand the species' decline. The reviews of classification of the Porsild's Bryum *(Haplodontium macrocarpum*) and Giant Helleborine (*Epipactis gigantea)* were not completed. COSEWIC decided that fully updated status reports are required to assess the status of these wildlife species.

23/07/2013